

# OPERATOR'S MANUAL



## M16A1 RIFLE

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TM 9-1005-249-10

C1

CHANGE }  
NO. 1 }

HEADQUARTERS

DEPARTMENT OF THE ARMY

WASHINGTON, DC 20 March 1979

## **OPERATOR'S MANUAL M16A1 RIFLE**

TM 9-1005-249-10, April 1977, is changed as follows:

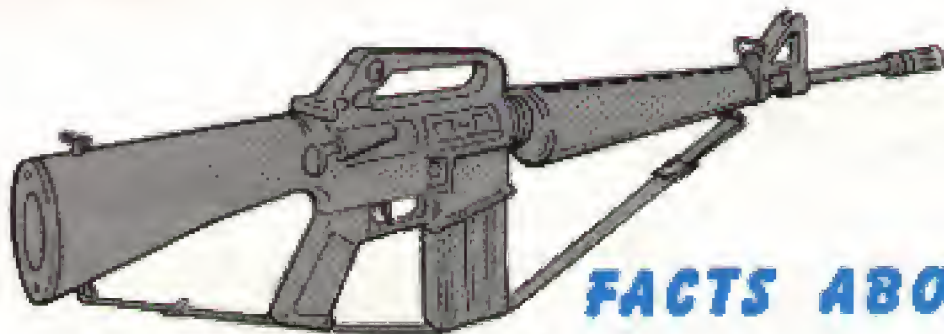
# WARNING

## DANGEROUS PROCEDURES

- Be sure the cam pin is installed in the bolt group. If it isn't, your rifle can still fire, but it could possibly explode, causing you harm.
- If you're using the blank ammo attachment, don't use any other ammo except the blank round, M200.
- DO NOT exchange or switch bolt assemblies from one M16A1 to another...It could cause damage to both you and the rifle.
- If your rifle stops firing with a live round in the chamber of a hot barrel, remove the round fast. However, during training, if you cannot remove it within 10 seconds, wait 15 minutes with the rifle pointing in a safe direction. This way you won't get hurt by a possible ammo cook-off, which could happen 10 seconds after contact with a hot chamber.
- Use only authorized ammo that is manufactured to U.S. specs.

- If your bolt fails to unlock and you try to free it by banging the butt stock on the ground, keep yourself clear of the muzzle.
- If there's water in the barrel, don't fire the rifle. It could explode.
- If a noticeable difference in sound or recoil is experienced, STOP FIRING. Either condition could indicate an incomplete propellant burn and a bullet still in the bore. Retract bolt slowly and remove fired cartridge case. Clear weapon and check for unburned powder grains in the receiver or bore and for a bullet in the bore. Remove unburned propellant or bullet from bore before resuming firing, or barrel could explode. If bullet is lodged in bore, turn in rifle to direct support maintenance.

IF YOU GO BY ALL THE INSTRUCTIONS IN THIS BOOK, AND PERFORM PREVENTIVE MAINTENANCE (PM), YOUR M16A1 RIFLE WILL SHOOT, AND SHOOT AND SHOOT. IF YOU'VE DONE YOUR PART AND IT STOPS SHOOTING, TAKE YOUR M16A1 RIFLE TO YOUR SERGEANT. HE HAS THE ANSWERS.



## FACTS ABOUT

The M16A1 rifle system consists of a rifle, one magazine and a sling. It is a lightweight, gas operated, air cooled, magazine fed, shoulder fired weapon that can be fired either automatic or semi-automatic.

Other features:

- The barrel assembly has an adjustable sight and a flash suppressor.
- Upper and lower receivers are easily opened for cleaning and inspection.
- Bolt group and barrel extension designed with locking lugs that lock bolt group to barrel extension.
- An aluminum receiver reduces the weight of the rifle.
- Some rifles are equipped with the Low Light Level Sight to increase effectiveness during periods of limited visibility.

# YOUR RIFLE

## Weight:

w/20 rd mag 3.5 Kg. (7.6 lb.)

w/30 rd mag 3.6 Kg. (7.9 lb.)

## Max effective rate of fire:

Semi: 45-65 rds per min

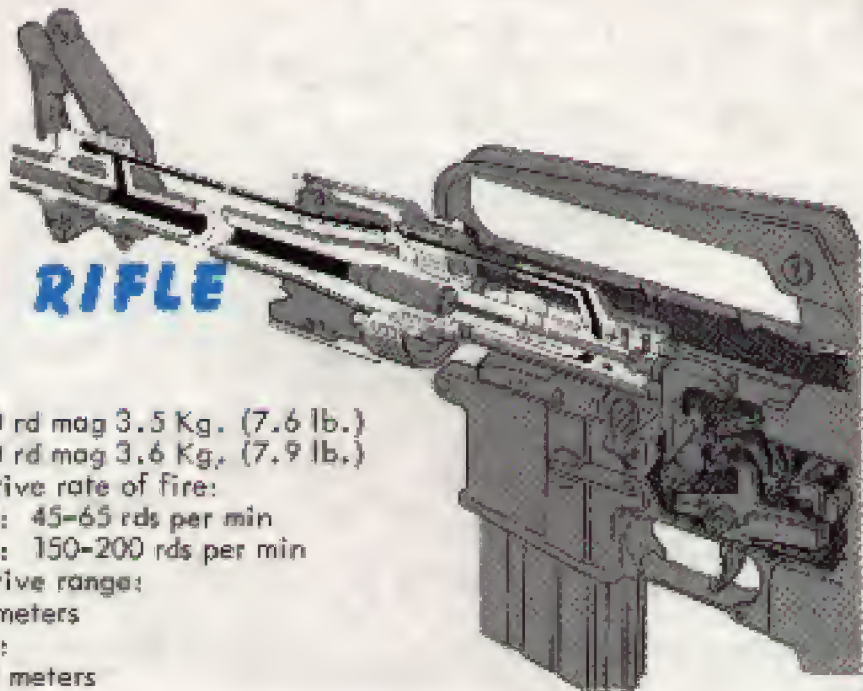
Auto: 150-200 rds per min

## Max effective range:

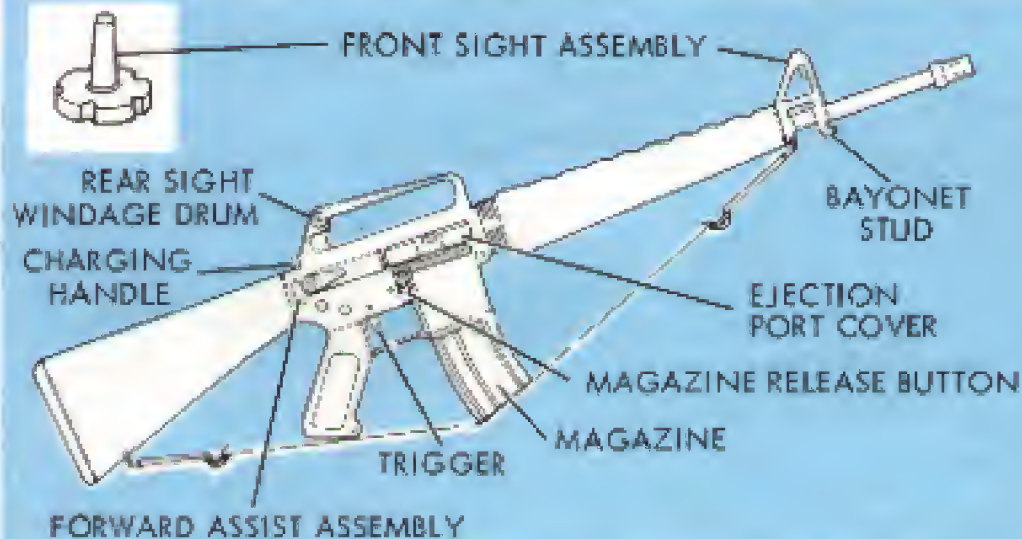
460 meters

## Max range:

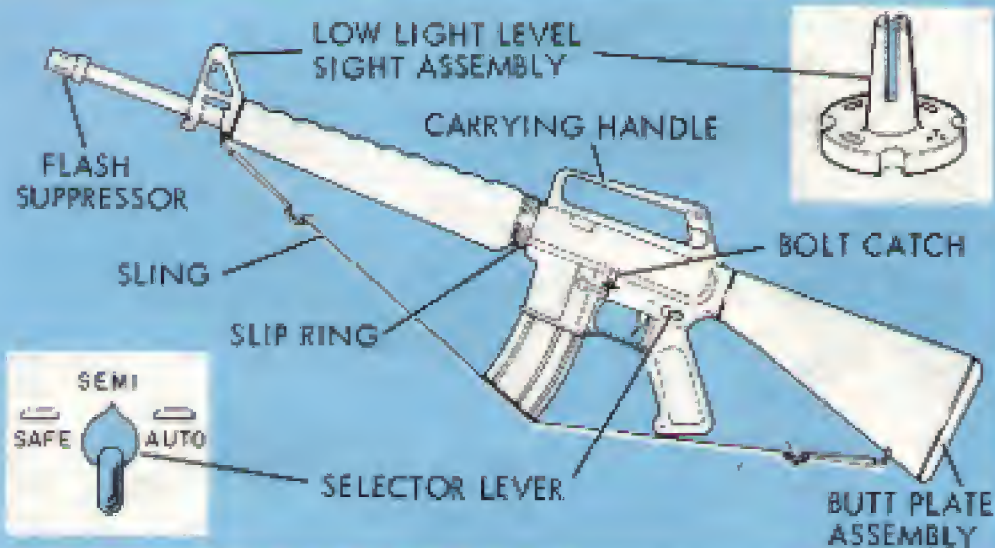
2653 meters



# RIFLE PARTS AND



# WHERE THEY ARE

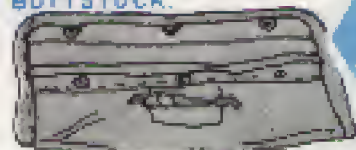




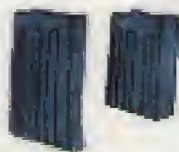
# ITEMS TROOP INSTALLED OR AUTHORIZED

Items which, at the discretion of the unit CO, may accompany the M16A1 rifle but are not subject to be turned in with the rifle

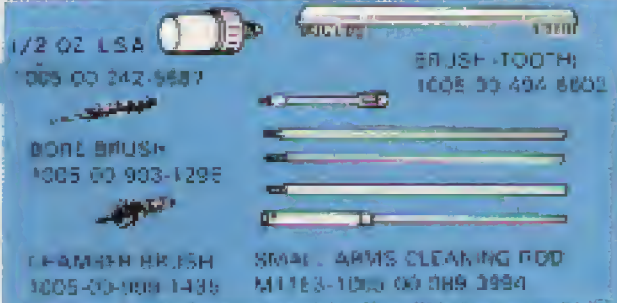
FOR RIFLE WITHOUT STORAGE BUTTSTOCK.



SMALL ARMS MAINTENANCE  
EQUIPMENT CASE 3465-00-781-9564



MAGAZINE ASSEMBLY  
1005-00-001 2737 (20 RD)  
(ISSUED UNTIL STOCK  
EXHAUSTED)  
1005-00-921 5004 (30 RD)



BUTTSTOCK STORAGE ONLY



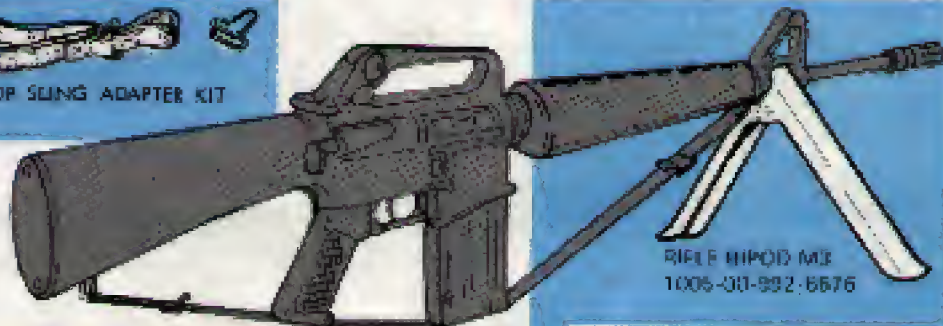
SMALL ARMS ACCESSORIES CASE  
1005-00-403-5604



# AUXILIARY EQUIPMENT



TOP SLING ADAPTER KIT



RIFLE BIPOD M16  
1005-00-892-6676

Get your MUZZLE CAP

5340-00-880-7566

MAG BAG

1005-00-052-8942 (20 RD)

1005-00-193-8006 (30 RD)

from your  
UNIT SUPPLY



CARRYING CASE  
1005-00-999-2430

SCABBARD

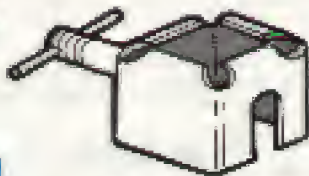
M8A1-1095-00-508-0039



M7 BAYONET

1005-00-073-9238

# M15A2 BLANK FIRING ATTACHMENT (BFA)



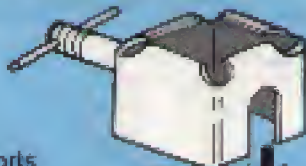
**WARNING** Use **ONLY** blank M200 with the BFA

1005-00-118-6192



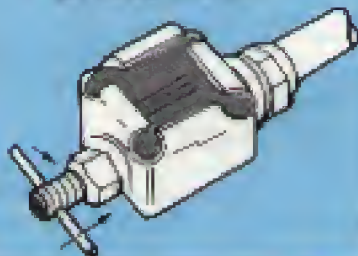
1. Unscrew and slide all the way back.

2. Hook behind first groove of flash suppressor



**CAUTION:** Do not use tools to tighten attachment, **HANDS ONLY**

3. Slide into flash suppressor and **HAND TIGHTEN**



**NOTE:** After 50 rounds, check to see if it is still tight. Make sure to clean carbon buildup after each use



# AMMUNITION

## WARNING

### DO NOT FIRE . . .

- Seriously corroded ammunition
- Dented cartridges
- Cartridges with loose bullets
- Cartridges exposed to extreme heat (135°) until they have cooled.

Use only authorized ammo that is manufactured to US specs.



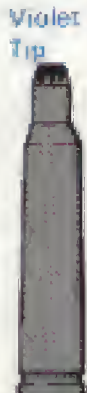
Ball,  
M193



Tracer  
M196



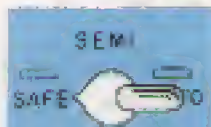
Dummy,  
M199



Blank,  
M200

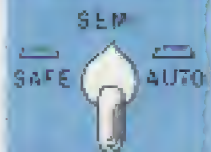
KEEP DRY, CLEAN, AND FREE OF CRUD  
YOUR LIFE DEPENDS ON IT

# USE OF SELECTOR LEVER



***safe***

Rifle will not fire. Selector lever cannot be on safe unless rifle is cocked. Always place in SAFE, when loading and unloading



***semi-automatic***

Rifle will fire one round each time the trigger is pulled



***automatic***

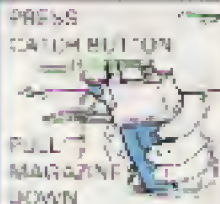
Rifle will continue to fire until the magazine is empty or the trigger is released

# CLEAR YOUR RIFLE

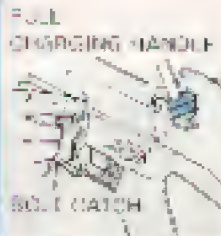
1. Place selector on SAFE. If weapon is not locked, lever control be pointed toward SAFE.



2. Remove magazine.



3. To lock bolt open, pull charging handle rearward until bottom of bolt comes in contact with engaged bolt catch. Push charging handle to forward if you haven't before place on SAFE.



4. Cycle bolt forward and chamber to ensure chamber contains no rounds.



5. With selector lever pointing toward SAFE allow bolt to go forward by pressing upper portion of bolt catch.





# DISASSEMBLY

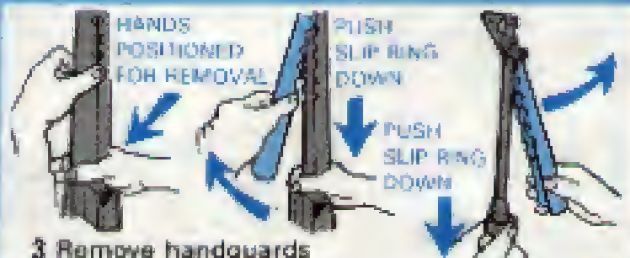
## *first* **CLEAR YOUR RIFLE**



2 Remove sling

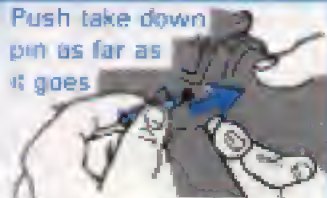
### NOTE →

Remove & clean  
only if dirt &  
corrosion can be  
seen through vent  
holes

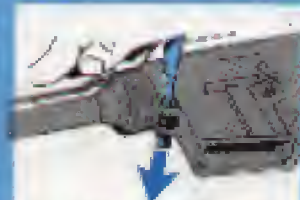


3 Remove handguards

Push take down  
pin as far as  
it goes



4 Pivot upper receiver  
from lower receiver



5 Push receiver  
pivot pin



6 Separate upper and  
lower receivers



7 Pull back  
charging handle  
and bolt carrier



8 Remove  
bolt carrier  
and bolt



9 Remove charging  
handle





# DISASSEMBLY *cont.*



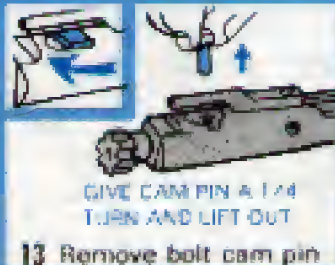
10 Remove firing pin retaining pin



11 Put bolt assembly in lock position



12 Drop firing pin out rear of bolt carrier

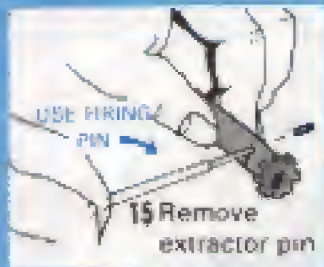


13 Remove bolt cam pin



14 Remove bolt assembly from carrier

# DISASSEMBLE STEPS 15 THRU 18 ONLY WHEN DIRTY OR DAMAGED



## NOTE

Press top of extractor to check spring function

See your **ARMORER**

Do not damage tip of firing pin

DON'T SEPARATE SPRING FROM EXTRACTOR

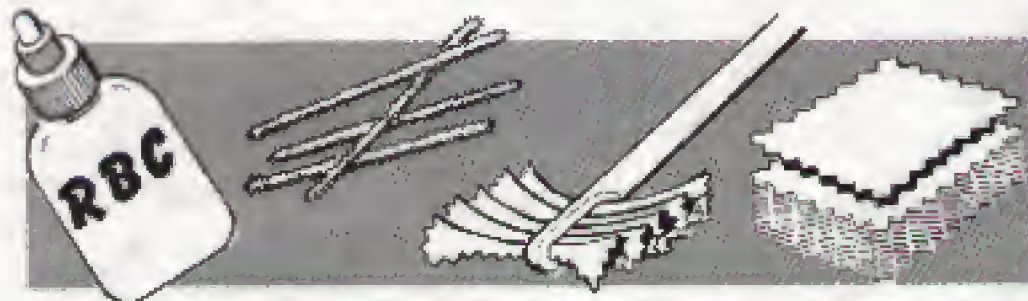


NO FURTHER  
DISASSEMBLY  
ALLOWED

# **CLEAN...INSPECT...LUBE**

With the rifle disassembled, thoroughly clean, inspect and lube, so you have a reliable weapon you can always depend on.

After firing, clean your weapon for 3 consecutive days with Rifle Bore Cleaner (RBC). Wipe dry and lube according to lubrication instructions.



Cleaning materials: swabs, pipe cleaners and RBC are expendable items that are available from Company Supply.

If any parts are missing or defective see your ARMORER.

# THOROUGH CLEANING

## upper receiver



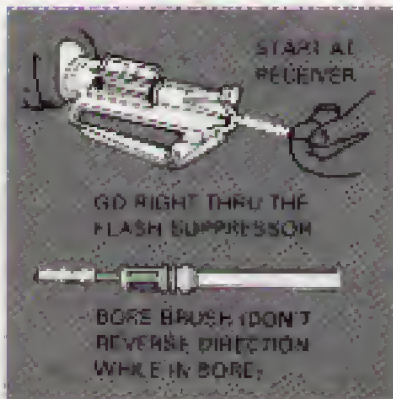
### CLEAN WITH RBC

- All Areas of Powder Fouling, Corrosion, Dirt & RUST

- Bore & Chamber

- Locking Lugs

- Gas Tube

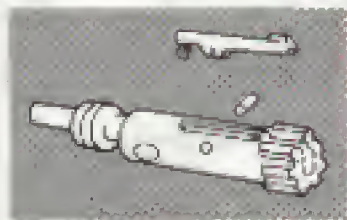
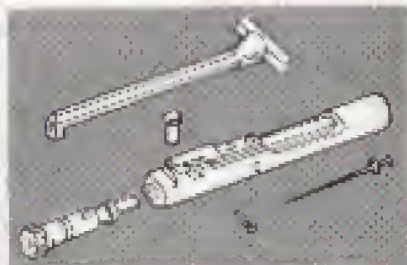


Use a worn bore brush to get outside surface of protruding gas tube (get sides and bottom from bottom of receiver)

# THOROUGH CLEANING

## *bolt carrier group*

- Outer & Inner Surfaces of Bolt Carrier
- Carrier Key
- Firing Pin Recess and Firing Pin
- Firing Pin Hole (Use Pipe Cleaner There)
- Carbon Deposits & Dirt from Locking Lugs
- Areas Behind Bolt Ring and Under Lip of Extractor



# THOROUGH CLEANING

## *lower receiver group*

- All Areas of Powder Fouling, Corrosion and Dirt

- Wipe Dirt from Trigger Mechanism

- Clean Buffer and Inside Lower Receiver Extension

### CAUTION

Do not use wire brush or any type of abrasive material to clean aluminum surfaces





# LUBE GUIDE

Under all but the coldest arctic conditions, LSA is the lubricant to use on your rifle. Remember to remove excessive oil from the bore before firing.

LSA - Lubricating oil, semifluid weapons

BETWEEN 0° F AND  
-35° F EITHER  
LSA OR LAW

LAW - Lubricating oil, Arctic weapons

Lightly Lube - A film of oil barely visible to the eye

Generously Lube - Heavy enough so that it can be spread with the finger

# LUBRICATING

## *upper receiver*



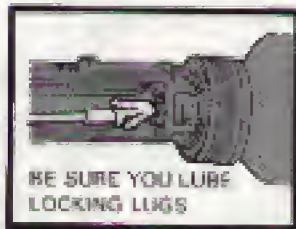
START AT  
RECEIVER

GO RIGHT THRU THE  
FLASH SUPPRESSOR

(DON'T REVERSE DIRECTIONS  
IN BORE)

### LIGHTLY LUBE

BORE & CHAMBER. OUTER SURFACES  
OF BARREL AND FRONT SIGHT. SURFACES  
UNDER HANDGUARD. DEPRESS FRONT  
SIGHT DETENT SEVERAL TIMES TO WORK  
LUBE INTO THE SPRING



BE SURE YOU LUBE  
LOCKING LUGS



FRONT SIGHT



# LUBRICATING

## *bolt carrier group*

### CAUTION

Lightly lube  
firing pin and  
firing pin recess  
in bolt



GENEROUSLY LUBE OUTSIDE OF THESE PARTS

MAKE CERTAIN TO GET  
CAM PIN AREA, PISTON  
RINGS, AND OUTSIDE OF  
THE BOLT BODY



DRY WITH PIPE CLEANER,  
THEN PLACE ONE DROP LSA



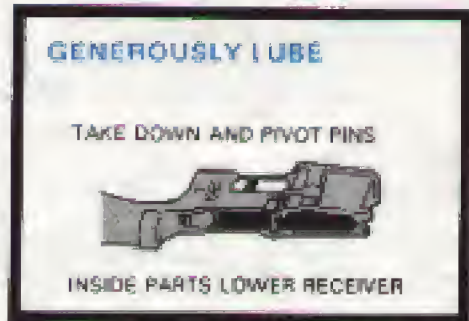
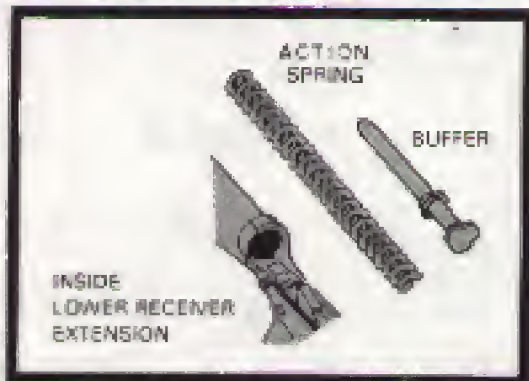
CARRIER KEY



LIGHTLY LUBE CHARGING HANDLE,  
INNER AND OUTER SURFACES OF  
BOLT CARRIER, GENEROUSLY  
LUBE SLIDE AND CAM PIN AREA OF BOLT

# LUBRICATING

## *lower receiver group*



# ***INSPECT-before assembly***

**WARNING** DO NOT interchange bolts between rifles



**BOLT** - Cracks or fractures, especially in the cam pin hole area. Bolts that contain pins extending into the firing pin hole need replacing.



**FIRING PIN RETAINING PIN** - Bent, busted, badly worn



**CAM PIN** - Cracked, chipped or missing



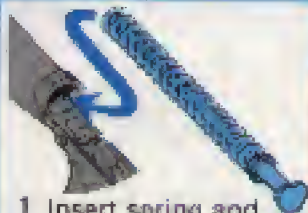
**EXTRACTOR AND EXTRACTOR SPRING** - Check extractor for chipped or broken edges in the area of the lip that engages the cartridge rim.



**FIRING PIN** - Bent, cracked or blunted end

**IF PARTS ARE MISSING OR DEFECTIVE, SEE YOUR ARMORER**

# ASSEMBLY



1 Insert spring and buffer



New extractor has a silicon insert w/ spring. Be sure not to lose it!

If the spring comes loose, put the large end of spring in the extractor and seat.

2 Insert extractor and spring



3 Push in extractor pin

## WARNING

Don't switch bolts between rifles



4 Slide bolt into carrier



STAGGER HING GAPS TO STOP GAS LOSS

# ASSEMBLY *cont.*



5 Replace bolt cam pin



GIVE CAM PIN A 1/2  
TURN AFTER ASSEMBLY



6 Drop in and seat



7 Pull bolt back



8 Replace retaining pin

**NOTE**  
Firing pin should not fall out  
when bolt carrier group is  
turned upside down



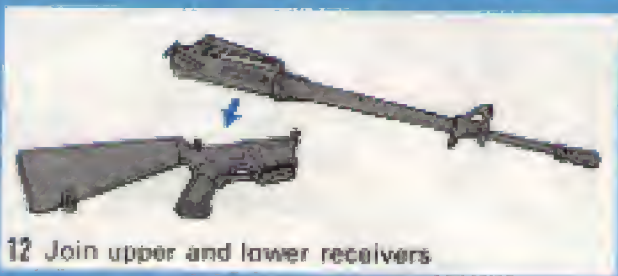
9 Engage, then push charging handle part way



10 Slide in bolt carrier group



11 Push in charging handle and bolt carrier group together



12 Join upper and lower receivers



13 Engage receiver pivot pin



# ASSEMBLY cont.

## CAUTION:

Safety Test Lever must be on safe or semi before closing upper receiver.



14 Close upper and lower receiver groups. Push in takedown pin



HOLD SLIP RING DOWN

15 PUT HANDGUARDS IN PLACE



RELEASE SLIP RING

CHECK FOR FULL ENGAGEMENT



16 Snap on sling

# **DID YOU INSTALL EVERYTHING?**

- *extractor & spring*
- *extractor pin*
- *bolt*
- *cam pin*
- *firing pin*
- *retaining pin*

EVERYTHING WILL  
WORK SLICK IF YOU  
HAVE ASSEMBLED  
ALL THE PARTS  
CORRECTLY

CHECK THE  
***selector lever***  
BY PERFORMING THE  
***FUNCTIONAL***  
***CHECK***

SEE PAGE 33



# MAGAZINE DISASSEMBLY

**20 RD MAG**

PUSH DOWN ON  
INTERNAL SPRING AND  
SLIDE OUT

Release base catch



**30 RD MAG**

PRY UP, PUSH OUT

Release base catch



Remove base



Jiggle spring and  
follower to remove



NOTE: Do not remove  
follower from  
spring.

# MAGAZINE ASSEMBLY

IF THE SPRING COMES  
LOOSE FROM THE  
FOLLOWER, TURN IN  
THE PIECES. DON'T  
TRY TO DO IT YOUR-  
SELF.

CLEAN & LUBE  
Wipe dirt from  
tube, spring, and  
follower, then  
lightly lube spring

Jiggle spring and  
follower to install



Slide the base  
under all four tabs



MAKE SURE  
PRINTING IS  
ON THE OUTSIDE

# PMCS\* *before operation and..*



1 Remove excessive oil



2 Retract bolt to assure free movement between bolt carrier and gas tube



4 Mag secure?



5 Proper tension?

3 Perform functional check to assure selector lever works properly

then  
back  
to  
step 4

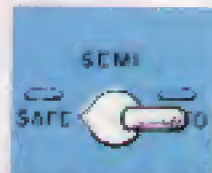
next  
page

\* Preventive Maintenance Checks and Services

# FUNCTIONAL CHECK

(REMOVE MAG , CHECK CHAMBER)

SELECTOR LEVER ON:



*safe*

Pull charging handle to rear and release. Place on safe. Pull trigger. Hammer should not fall.



*semi*

Place selector in semi. Pull trigger and hold to rear. Hammer should fall. Pull charging

handle to rear and release. Release trigger and pull again. Hammer should fall.

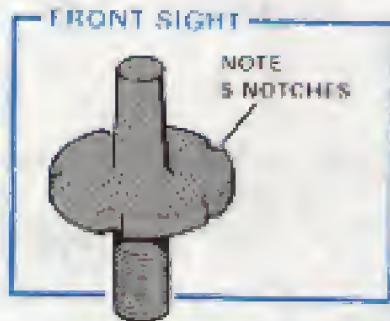
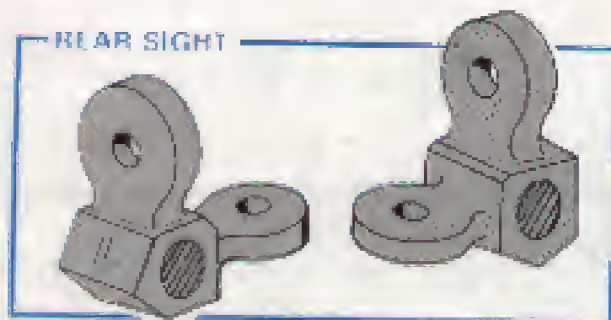


*auto*

Place selector in auto. Pull charging handle to rear and release. Pull trigger and hold to rear. Hammer should fall. Pull

charging handle to rear and release. Release trigger and pull again. Hammer should not fall.

# STANDARD DAYLIGHT SIGHT



**REAR SIGHT** - Has two apertures for range  
Unmarked aperture - 0 - 300 meter range.  
Under aperture - 300 - 460 meter range

See page 33 for sight usage

# LOW LIGHT LEVEL SIGHT SYSTEM (Promethium Sight)

NOTE: Not every rifle will have this sight

REAR SIGHT



FRONT SIGHT



## PURPOSE

Used during limited visibility. A weapon equipped with the PROMETHIUM front sight has only 4 "notches" of elevation per revolution, whereas the original sight had 5. The 7mm rear sight aperture is for night firing and limited visibility. The 2mm aperture is used to zero the weapon and engage targets to 400 M under normal conditions (see page 40 for sight usage).

**CAUTION:** The front sight post contains a small glass vial of radioactive Promethium 147. Take care not to bump, shake, tamper or alter the post in any manner. DO NOT block or set-up the front sight.



# OPERATION - loading and



MAGAZINE MAY BE LOADED WITH BOLT ASSEMBLY OPEN OR CLOSED

# *chambering a round*

## BOLT ASSEMBLY OPEN



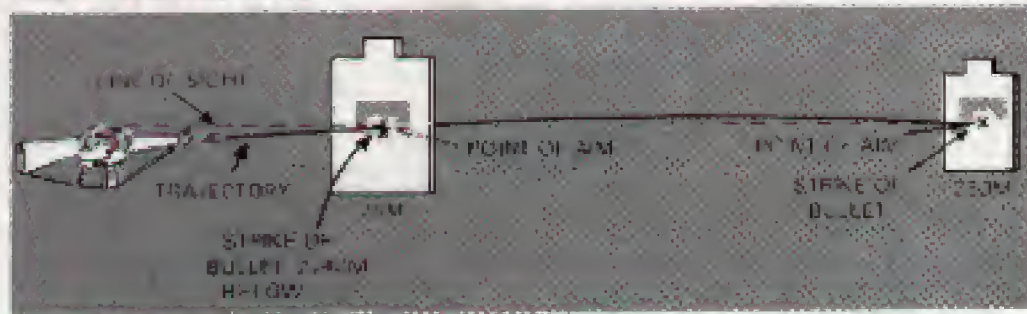
## BOLT ASSEMBLY CLOSED





# BATTLESIGHT ZERO

TO ZERO THE RIFLE, YOU MUST HAVE THE FRONT SIGHT (ELEVATION) AND THE REAR SIGHT (WINDAGE) ADJUSTED SO THAT IT CAN HIT YOUR POINT OF AIM AT A GIVEN RANGE



## NOTE:

In order to battlesight zero you adjust your sights so you can hit an aiming point at 250 meters. Zeroing can also be accomplished on a 25 meter range by adjusting the sights so that the bullet will strike 2.4 centimeters below the point of aim. If M16A1 has "promethium" sight and you can't see the vial after zeroing, turn front sight post one click down for use during periods of limited visibility

# SIGHT ADJUSTMENT

## LOW LIGHT & STANDARD



**WINDAGE ADJUSTMENT:** To adjust windage, depress detent and rotate drum to desired direction. To move point of impact to right, turn drum clockwise in direction of arrow and letter R. To move left, move drum counterclockwise. Each graduation (notch) moves the point of impact of bullet as indicated in chart.



**ELEVATION ADJUSTMENT:** To adjust elevation, depress detent, rotate post. To raise strike of bullet, rotate post in the direction of arrow marked up. Reverse the direction of rotation to lower strike of bullet. Each graduation (notch) moves the point of impact of bullet as indicated in chart.

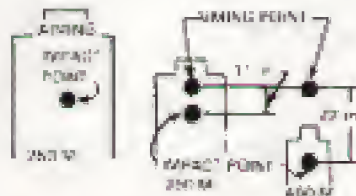
IMPACT		DISTANCE
STANDARD	LOW LIGHT LEVEL	
1 Notch = 64 in.	1 Notch = 24.34 in.	500 YARDS
2 Notch = 32 in.	2 Notch = 48.68 in.	100 YARDS
5 Notch = 160 in.	5 Notch = 121.70 in.	200 YARDS

# USING LOW LIGHT LEVEL (PROMETHIUM) SIGHT SYSTEM

## daylight firing



Use aperture marked L. Effective range is 250 meters (original handle sight, never beyond system "Hold-Off" (lowering above forward point of impact) must be used. Aim about 11 in. at 250 meters, 22 in. at 480 meters. To become and remain proficient, practice "Hold Off".



## night and limited visibility



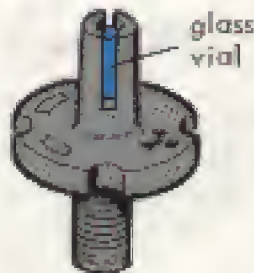
Use unmarked (7mm) aperture. Obtain good sight picture using daylight hours and culture. After target detection, obtain good sight alignment by centering top of luminous portion of front sight and walk in 7mm aperture on target, and the target will be

right on target. Front sight post can be seen, but you can't determine whether you are looking through, above, or to the side of rear sight aperture. Practice positioning device against shoulder and looking through rear aperture.

# **CARE & CLEANING of PROMETHIUM SIGHT**

## ***handling and care***

- The front post has a small glass vial containing radioactive Promethium 147.
- Take care when handling, not to bump the front sight post. DO NOT abuse, tamper or alter the post in any manner.
- Frequently check the sight post for damage. If damage is evident or suspected, have it checked by your unit armorer.



## ***cleaning of front sight post***

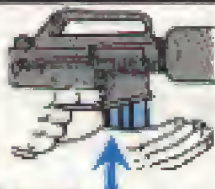
**CAUTION:** DO NOT use a wire brush to clean the sight.

Clean with toothbrush, bore swabs and Rifle Bore Cleaner (RBC), then dry.

# IMMEDIATE ACTION

If your rifle stops firing before you do . . . **S.P.O.R.T.S.**  
S.P.O.R.T.S. is an acronym\* to help you remember  
the following actions — **Slap, Pull, Observe, Re-**  
**lease, Tap, Shoot.**

\*ac-ro-nym: a word formed from the initial letters  
of each word in a group of words that convey a  
meaning or action.



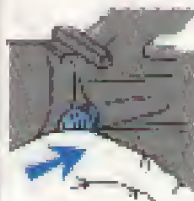
1 **SLAP** upward on  
magazine to make  
sure it's properly  
seated.



2 **PULL** charging  
handle all the way  
back. **OBSERVE**  
ejection of case or  
cartridge. Eyeball  
chamber and check  
for obstruction.



3 If cartridge or case  
is ejected or chamber  
is clear. **RELEASE**  
charging handle to  
feed new round (Don't  
ride the charging  
handle)



4 **TAP** forward assist



5 Now **SHOOT**. If  
it won't fire, look for  
trouble and apply  
remedial action

# REMEDIAL ACTION

## WARNING

If your rifle stops firing with a live round in the chamber of a hot barrel, remove the round fast. However, during training, if you cannot remove it within 10 seconds, wait 15 minutes with the rifle pointing in a safe direction. This way you won't get hurt by a possible ammo cook-off, which could happen 10 seconds after contact with a hot chamber.

If your rifle fails to fire after performing steps 1 thru 5, check again for jammed cartridge case.



If a cartridge case is in the chamber, tap out with a cleaning rod.

IF YOUR RIFLE STILL FAILS TO FIRE. CHECK TROUBLESHOOTING



# PROJECTILE LODGED IN BORE

## WARNING

If an audible "POP" or reduced RECOIL is experienced during firing, immediately CEASE FIRE, remove the magazine (1), lock the bolt to the rear (2), and place the selector lever on the "SAFE" position (3). Visually inspect and/or insert a cleaning rod into the bore to insure there is not a projectile lodged in the bore (4).

DO NOT APPLY IMMEDIATE ACTION.

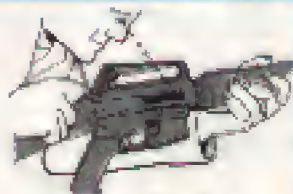


If a projectile is lodged in the barrel of the weapon, DO NOT attempt to remove it. Turn the weapon in to the armorer.



# LIMITED PM CLEANING

## CLEAR YOUR RIFLE



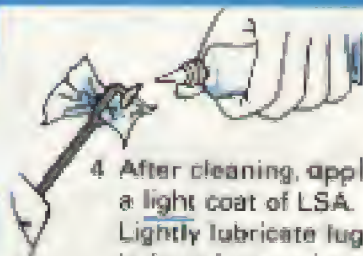
- 1 Look for fouling in bore and chamber



- 2 Remove bolt carrier group and clean carbon and oil from firing pin and all surfaces of bolt/bolt carrier with dry swabs. Clean firing pin hole and bolt carrier key with pipe cleaner. Apply light coating of LSA paying special attention to slide and cam pin area



- 3 "Swab out" (from chamber to muzzle)  
**CAUTION:** Don't bend or flex cleaning rod. Oh yeah, make sure swab goes clear through flash suppressor



- 4 After cleaning, apply a light coat of LSA. Lightly lubricate lugs in barrel extension

# UNUSUAL CONDITIONS

## EXTREME COLD

- Clean and lubricate rifle with LAMV. Keep it moisture free.
- Operate controls thru their entire range at intervals to keep them from freezing up.
- When your rifle is not being used and kept outside protect it with a cover.



## HOT CLIMATES

- Inspect rifle and bipod more frequently, especially the hidden surfaces of bolt carrier group, forward assist assembly and lower receiver components. Make certain they are lubricated using LSA.
- When handling, make certain to wipe dry, as moisture could cause corrosion. After drying, lubricate with LSA.

## HOT, DRY CLIMATES

Clean and oil rifle more frequently with LSA.

## DUSTY AND SANDY AREAS

- Clean and lubricate your rifle more frequently.
- Keep sand out of parts when inspecting, lubricating, or assembling rifle. Apply only a very light amount of lubrication on outside of rifle.
- Use magazine bag and muzzle cap for dust and sand protection.

**CAUTION:** Do not use magazine bag and muzzle cap on stored rifles.

# AFTER FORDING

**WARNING** DO NOT FIRE RIFLE IF  
WATER IS PRESENT IN BARREL

HERE'S WHAT YOU DO! ● ● ●

● ● ● AFTER YOU REMOVE THE CAP



REMOVE MUZZLE CAP

POINT THE  
MUZZLE  
DOWN



PULL CHARGING  
HANDLE 2 TO 3  
INCHES REARWARD  
AND ALLOW WATER  
TO DRAIN





RELEASE CHARGING  
HANDLE AND  
STRIKE FORWARD  
ASSIST TO SEAT  
ROUND AND LOCK  
BOLT





CLEAR THE DRAIN HOLE WITH  
A PIPE CLEANER AND  
DRAIN



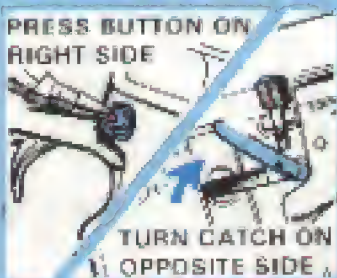
# TROUBLESHOOTING

PROBLEM	CHECK FOR	WHAT TO DO
WON'T FIRE	Selector lever on SAFE	Put it on SEMI or AUTO
	Improper assembly of firing pin	Assemble correctly  FIRING PIN BOLT HEAD OF BOLT BOLT HEAD OF FIRING PIN
	Too much oil in firing pin recess	Wipe off
	Defective ammo	Remove and discard
BOLT WON'T UNLOCK	Too much carbon on firing pin	Clean 
	Dirty or burred bolt	See your NCO or your unit ARMORER

# TROUBLESHOOTING

PROBLEM	CHECK FOR	WHAT TO DO
WON'T EXTRACT	Broken extractor spring	See your ARMORER 
	Dirty or corroded ammo	Remove. Push out stuck round with cleaning rod
	Carbon in chamber Fouling or carbon in extractor recess or lip	Clean chamber Clean 
WON'T FEED	Dirty or corroded ammo	Clean
	Dirty magazine	Clean
	Defective magazine	Replace
	Too many rounds in magazine	Take out excess
	Restricted buffer assembly action	Take out the buffer and spring, and clean

# TROUBLESHOOTING

PROBLEM	CHECK FOR	WHAT TO DO
WON'T FEED	Magazine not fully seated.	Adjust magazine catch  <p>PRESS BUTTON ON RIGHT SIDE</p> <p>TURN CATCH ON OPPOSITE SIDE</p>
	Defective magazine	Replace
DOUBLE FEED	Defective magazine	Replace



# TROUBLESHOOTING

## WON'T CHAMBER

Dirty or corroded  
ammo  
Damaged ammo  
Carbon in chamber

## WON'T LOCK

Dirt, corrosion, or  
carbon buildup in  
barrel locking lugs

Frozen extractor

Restricted buffer  
assembly

Restricted movement  
of bolt carrier  
group

Clean

Replace  
Clean

Clean lugs

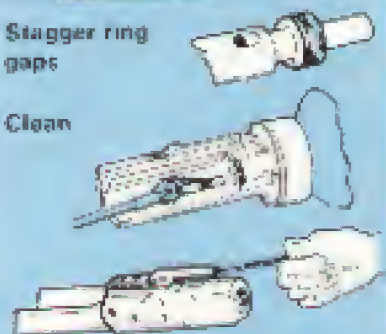
Remove and clean

Remove and clean

Remove, clean, and lube.  
When putting bolt back in,  
make sure gas tube fits into  
carrier key and moves freely)



# TROUBLESHOOTING

PROBLEM	CHECK FOR	WHAT TO DO
SHORT RECOIL	Gaps in bolt rings (not staggered)	Stagger ring gaps
	Carbon or dirt in carrier key or on outside of gas tube	Clean
		
BOLT FAILS TO LOCK AFTER LAST ROUND	Dirty or corroded bolt latch	Clean
	Faulty magazine	Replace
SELECTOR LEVER BINDS	Needs oil	Lubricate with LSA

# TROUBLESHOOTING

## PROBLEM

**BOLT CARRIER  
"HUNG UP"**

## CHECK FOR

Round jammed be-  
tween bolt and  
charging handle

## WHAT TO DO

- 1 Remove magazine
- 2 Hold charging  
handle back and  
bang rifle butt  
on ground.  
**KEEP CLEAR  
OF MUZZLE**



**CAUTION** After round is removed,  
bolt is under tension

- 3 While bolt  
is held to  
rear, push  
charging  
handle for-  
ward. Round  
should fall  
through  
magazine well



# **TROUBLESHOOTING**

PROBLEM	CHECK FOR	WHAT TO DO
CAN I SEE PROMETHIUM SIGHT POST	Check for alignment of illumigous elements  Luminous element dirty  Luminous element broken or missing	Rotate front sight post up or down one click  Clean with dry cleaning solvent  Turn in to ARMORER

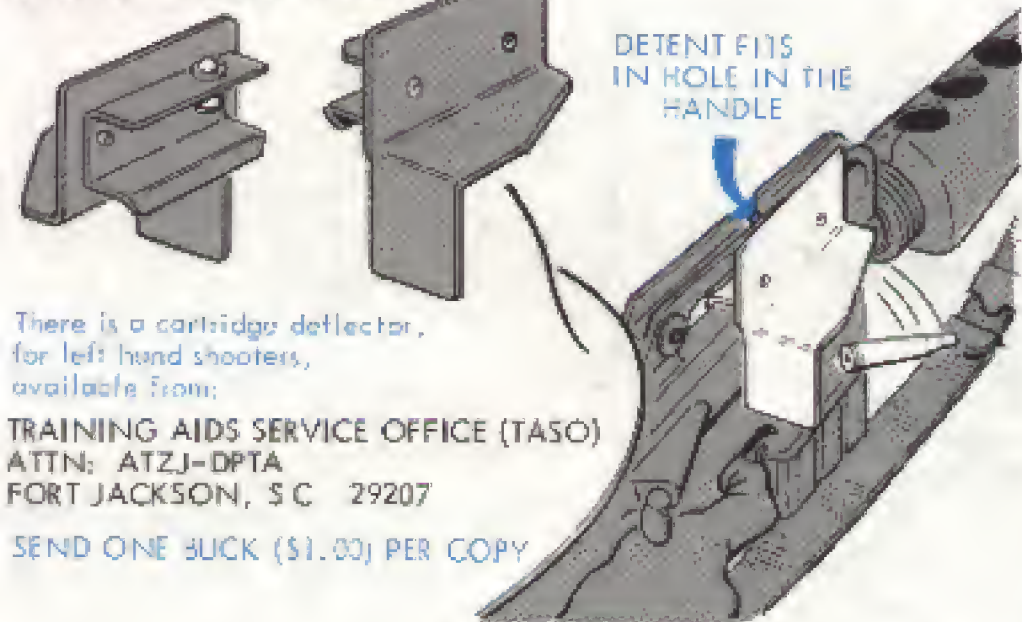
# FOR LEFTYS'

There is a cartridge deflector,  
for left hand shooters,  
available from:

TRAINING AIDS SERVICE OFFICE (TASO)  
ATTN: ATZJ-DPTA  
FORT JACKSON, SC 29207

SEND ONE BUCK (\$1.00) PER COPY

DETENT FITS  
IN HOLE IN THE  
HANDLE



# SARGE'S INSPECTION

Sarge'll gig ya if the following items are not clean. . . .

BOLT,  
SIGHTS,  
RECEIVER,  
CHARGING HANDLE,  
HANDGUARDS,  
GAS TUBE & PORTS,  
STOCK DRAIN HOLE,  
BORE & FLASH SUPPRESSOR,  
MAGAZINE CATCH &  
MAGAZINE WELL

He'll also check the overall condition of the  
SIGHTS, BIPOD, STOCK, & HANDGUARDS  
So, be prepared, keep it clean and lubed.





DID WE GOOF?  
DO YOU KNOW A BETTER WAY?  
DON'T KEEP THOSE GRIPEs TO YOURSELF  
WE'D LIKE TO HAVE YOUR IDEAS

USE D.A. FORM  
2028 OR WHATEVER  
YOU HAVE HANDY

*write*

COMMANDER  
US ARMY ARMAMENT MATERIEL  
READINESS COMMAND  
ATTN: DRSAR-MAS  
ROCK ISLAND, IL 61201